ENOV (HUIZHOU) NEW ENERGY TECHNOLOGY CO., LTD

UAV DRONE BATTERY

HIGH DISCHARGE LI-PO BATTERY(HPD)-FPV

PRODUCT DATASHEET

FPV BATTERY

PRODUCT CHARACTERISTICS

- High Discharge C -rate , Burst up to 150C+.
- Safety and Stability.
- Wide temperature range work well form: -20℃ to 60℃.
- Support 2C fast charging: complete charging within 30 minutes.
- Strong deep discharge, 1C discharge DOD reaches 100%.

SPECIFICATIONS

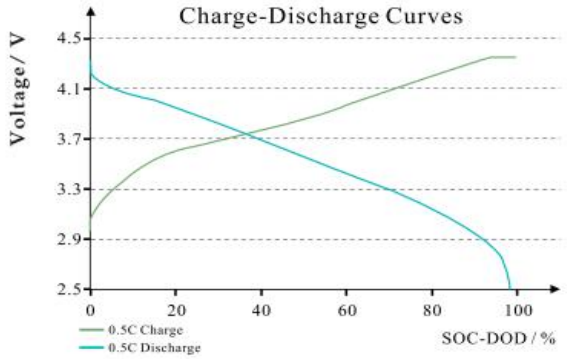
Model	Capacity	Energy	Cont. discharge current	Max discharge current (A/0.3S)	Dimension (L*W*H) mm	Weight (kg)	Energy density (Wh/kg)
EN-130011A-HPD	11.1V 1300mAh 3cell	14.43Wh	130A/100C	195A/150C	24.5*35*68	0.12	121
EN-130022B-HPD	22.2V 1300mAh 6cell	28.86Wh	130A/100C	195A/150C	46.5*36.5*70.5	0.22	132
EN-1A6D11A-HPD	11.1V 1600mAh 3cell	17.76Wh	160A/100C	240A/150C	25,5*45*67.5	0.16	111
EN-1A6D22B-HPD	22.2V 1600mAh 6cell	35.52Wh	160A/100C	240A/150C	49.4*45*67.5	0.31	115
EN-1A8D11A-HPD	11.1V 1800mAh 3cell	19.98Wh	180A/100C	270A/150C	24.9*44*68.5	0.16	125
EN-1A8D22B-HPD	22.2V 1800mAh 6cell	39.96Wh	180A/100C	270A/150C	48.2*44.5*68.5	0.29	138
EN-220011A-HPD	11.1V2200mAh 3cell	24.42Wh	176A/80C	330A/150C	27.5*34.5*106	0.2	121
EN-220022B-HPD	22.2V 2200mAh 6cell	48.8.4Wh	176A/80C	330A/150C	49.4*35*106	0.37	132
EN-320011A-HPD	11.1V 3300mAh 3cell	36.63Wh	231A/70C	495A/150C	22.3*45*136	0.28	111
EN-320022B-HPD	22.2V 3300mAh 6cell	73.26Wh	231A/70C	495A/150C	42.6*45*136	0.53	115
EN-370011A-HPD	11.1V 3700mAh 3cell	41.07Wh	259A/70C	555A/150C	25.3*45*136	0.31	125
EN-370022B-HPD	22.2V 3700mAh 6cell	82.14Wh	259A/70C	555A/150C	49.6*45*136	0.6	138
EN-440011A-HPD	11.1V 4400mAh 3cell	48.84Wh	308A/70C	660A/150C	23,8*46*155	0.36	123
EN-440022B-HPD	22.2V 4400mAh 6cell	97.68Wh	308A/70C	660A/150C	47,1*46*156	0.7	132
EN-490011A-HPD	11.1V 5000mAh 3cell	55.5Wh	350A/70C	750A/150C	25.8*46*158.5	0.42	131
EN-490022B-HPD	22.2V 5000mAh 6cell	111Wh	350A/70C	750A/150C	50*46.5*158.5	0.79	139
EN-5A1A22B-HPD	22.2V 5100mAh 6cell	113.22Wh	510A/100C	765A/15QC	54.8*46.8*166	0.68	133
EN-5A1A11A-HPD	11.1V 5100mAh 3cell	56.61Wh	510A/100C	765A/150C	28.2*46.8*166	0.42	137
EN-550011A-HPD	11.1V 5500mAh 3cell	61.05Wh	385A/70C	825A/150C	30.5*46*155	0.43	136
EN-550022B-HPD	22.2V 5500mAh 6cell	122.1Wh	385A/70C	825A/150C	60.5*46*156	0.83	140
EN-400011A-HPD	4000mAh 11.1V 3S1P	44.4Wh	140A/35C	420A/105C	136*46*28	0.31	133
EN-400014H-HPD	4000mAh 14.8V 4S1P	59.2Wh	140A/35C	420A/105C	136*46*36	0.4	141
EN-4000228-HPD	4000mAh 22.2V 6S1P	88.8Wh	140A/35C	420A/105C	136*46*52	0.58	167
EN-500011A-HPD	5000mAh 11.1V 3S1P	55.5Wh	175A/35C	525A/105C	136*46*33	0.4	135
EN-500014H-HPD	5000mAh 14.8V 4S1P	74Wh	175A/35C	525A/105C	136*46*43	0.52	142
EN-500022B-HPD	5000mAh 22.2V 6S1P	111Wh	175A/35C	525A/105C	136*46*63	0.76	148
EN-600011A-HPD	6000mAh 11.1V 3S1P	66.6Wh	210A/35C	630A/105C	155*51*30	0.47	142
EN-600014H-HPD	6000mAn 14.8V 4S1P	88.8Wh	210A/35C	630A/105C	155*51*39	0.62	144
EN-600022B-HPD	6000mAb 22.2V 6S1P	133 2Wh	210A/35C	630A/105C	155*51*57	0.91	147
EN-800011A-HPD	8000mAh 11.1V 3S1P	88.8Wh	280A/35C	840A/105C	166*62*30	0.59	151
EN-800014H-HPD	8000mAh 14.8V 4S1P	118.4Wh	280A/35C	840A/105C	166*62*39	0.78	152
EN-800022B-HPD	8000mAh 22.2V 6S1P	177.6Wh	280A/35C	840A/105C	166*62*57	1.15	155
EN-1A0011A-HPD	10000mAh 11.1V3S1P	111Wh	250A/25C	750A/75C	166*62*33	0.68	164
EN-1A0014H-HPD	10000mAh 14.8V 4S1P	148Wh	250A/25C	750A/75C	166*62*43	0.9	165
EN-1A0022B-HPD	10000mAh 22.2V 6S1P	222Wh	250A/25C	750A/75C	166*62*63	1.33	167

——OEM or ODM is available

BATTERY CELL PERFORMANCE TEST

BASIC CHARGE AND DISCHARGE PERFORMANCE

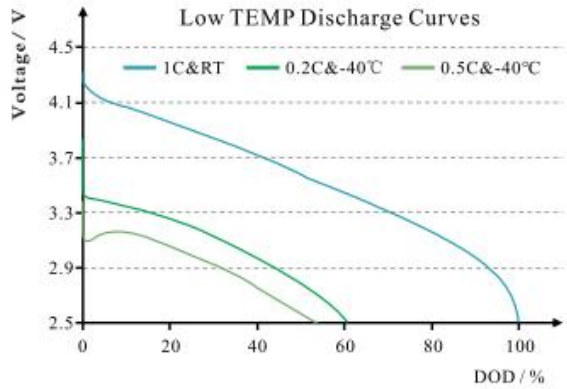
Test method: Under normal temperature, 0.5C constant current constant voltage charge to 4.35V, cut-off current 0.05C; Let it sit for 10min and then drain it to 2.5V at 0.5C.



Item	0.5C charging capacity /Ah	0.5C discharge capacity /Ah	Charge and discharge efficiency /%
Test value	32.1	31.6	98.5

LOW TEMPERATURE DISCHARGE -40°C

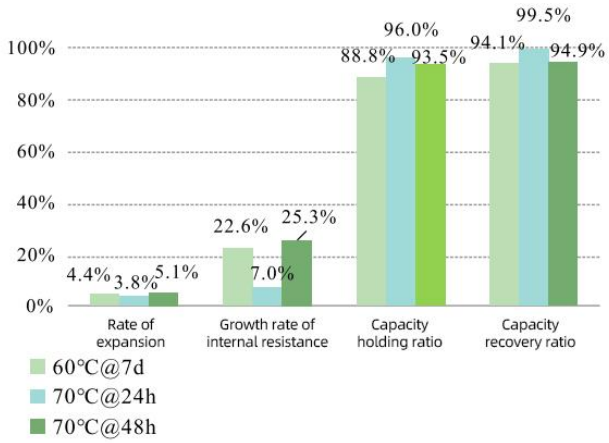
Test method: Under normal temperature, 0.5C constant current constant voltage charge to 4.35V, cut-off current 0.05C; At -40°C for 4~6h, and then at 0.2C, 0.5C constant discharge to 2.4V.



Temperature	Rate of multiplication	Capacity/Ah	Median voltage /V	Capacity retention rate /%
RT	1C	31.65	3.569	100.00
-40℃	0.2C	19.82	3.103	62.62
-40℃	0.5C	18.43	2.939	58.23

HIGH TEMPERATURE STORAGE

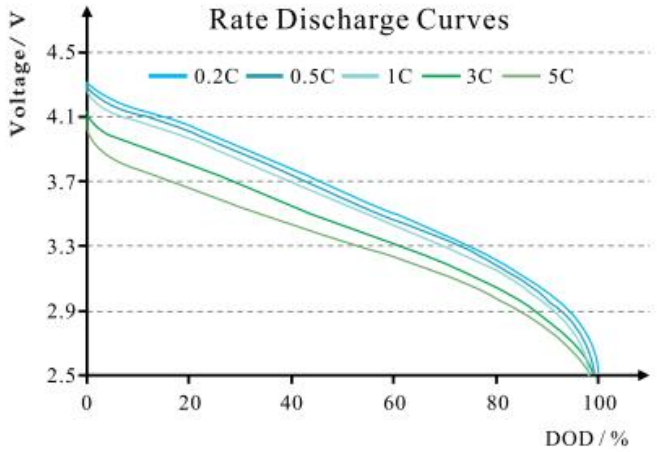
Test method: At room temperature, 0.5C constant current constant voltage charge to 4.2V, cut-off current 0.05C; After being stored at 60℃ for 7d, 70℃ for 24h and 70℃ for 48h, the current was discharged to 3.0V at 1C. Then charge 1C at 0.5C, cycle 3 times, record ACR, thickness, capacity before and after storage.



BATTERY CELL PERFORMANCE TEST

◆ RATE DISCHARGE RT

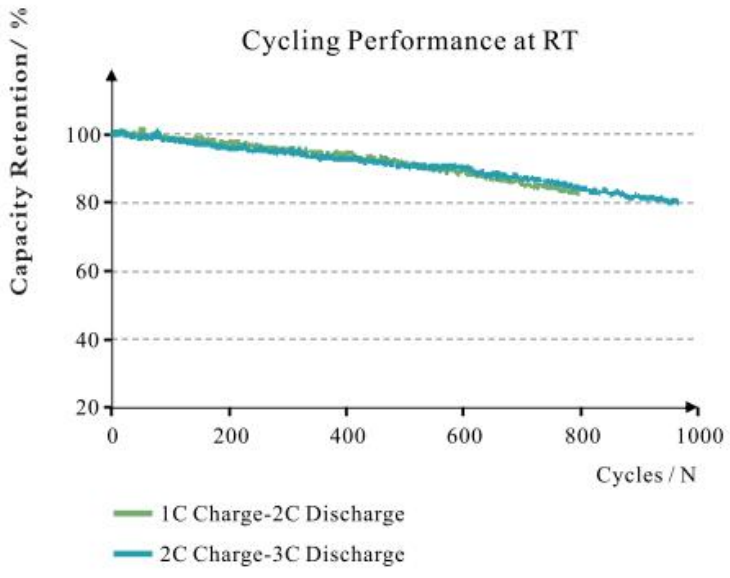
Test method: Under normal temperature, 0.5C constant current and constant voltage charge to 4.35V, cut-off current 0.05C; Put it on for min, and then discharge it to 2.5V at 0.2C, 0.5C, 1C, 3C and 5C.



Rate of multiplication	Capacity /Ah	Median voltage /V	Capacity retention rate /%
0.2C	32.22	3.619	100.00
0.5C	31.88	3.603	98.9
1C	31.71	3.569	98.4
3C	31.93	3.430	99.1
5C	31.77	3.339	98.6

◆ LOOP PERFORMANCE RT

Test method a: Under normal temperature, 1C constant current and constant voltage charge to 4.35V, cut-off current 0.05C: leave for 15min, then 2C constant discharge to 2.75V, do cycle test.
Test method a: Under normal temperature, 2C constant current and constant voltage charge to 4.35V, cut-off current 0.05C: leave for 15min, then 3C constant discharge to 2.75V, do cycle test.



Cycle number	1C charge 2C discharge	2C charge 3C discharge
1	100.0	100.0
100	99.0	98.6
200	98.0	95.9
300	95.6	95.1
400	94.6	93.0
500	91.5	91.1
600	89.7	90.3
700	85.8	86.8
800	82.9	84.2
900	/	81.
1000	/	80.3(966th)

WARRANTY PERIOD OF CELL

Enov provides a one-year warranty on the battery (starting from the date of manufacture). During the warranty period, if there is a performance failure or complete failure of the battery caused by non-human, it is confirmed by our technical department that it is a quality problem such as raw material defects and production process defects, and there is no abnormal use such as private disassembly, improper storage (ambient temperature over 60℃ or below -20℃), physical impact, liquid immersion, etc. Customers can apply for free replacement of new battery units of the same model through the official customer service channels with valid purchase vouchers and complete product serial number labels.

STORAGE AND SHIPMENT REQUIREMENT

Item	Requirement	Remark
Storage temperature	≤1 month:-20℃~45℃ ≤3 month:-20℃~30℃ ≤1 year:23±2℃	The best temperature in shipment is 23±5℃
Humidity	≤75%RH	/
Charged Capacity	50%-100%	Voltage13.2-14.6V

1.The storage temperature should be controlled at -20℃~40℃, away from open flame, corrosive substances and humid environment.

2.Do not charge in a sealed, high temperature (> 40℃) or low temperature (< -5℃) environment to avoid abnormal reaction of the electrolyte.

3.Do not reverse connect the positive and negative terminals; otherwise, short circuit or device damage may occur.

4.If the volume of the lithium battery is smaller than that of the original battery, secure the battery using the provided base or foam to ensure stable installation.

5.When storing, it is important to avoid external vibrations and colisions as much as possible toavoid short circuits inside the battery or damage to the metal casing.

USE WARNINGS AND CAUTIONS

WARNINGS!

The cell will fire, explode or leak if not strictly observing this item described below.

- Do not immerse the cell in water or seawater, and keep the cell in a cool dry environment during stands by period.
- Do not mix using the cell with one-off cell (such as dry cell) or different performance together.
- Keep all batteries out of the reach of little children. Consult a doctor immediately if a cell is swallowed.
- Do not use or leave the cell near a heat source such as fire or heater
- When re-charging , use the cell charger specifically for that purpose.
- Do not reverse the positive (+) and negative (-) terminals.
- Do not connect the cell to an electrical outlet.
- Do not dispose the cell in fire or heat.
- Do not short-circuit the cell by directly connecting the positive (+) and negative (-) terminals with metal objects such as wire.
- Do not transport or store the cell together with metal obiects such as necklaces, hairpins etc.
- Do not strike or throw the cell against hard surface.
- Do not directly solder the cell .
- Dot not pierce the cell with a nail or other sharp object.
- Never disassembling the cell in any way.

CAUTIONS!

- Do not use or leave the cell at very high temperature (for example, at strong direct sunlight or in a vehicle in extremely hot weather). Otherwise, it can overheat or fire or its performance will be degenerate and its service life will be shortened.
- Do not use it in a location where static electricity is rich, otherwise, the safety devices may be damaged, causing a harmful situation.
- In case the electrolyte getting into the eyes due to the leakage of cell, do not rub the eyes! Rinse the eyes with clean running water, and seek medical attention immediately. Otherwise, it may injure eyes or cause a loss of sight.
- If the cell gives off an odor, generates heat, becomes discolored or deformed, or in anyway appear abnormal during use, recharging or storage, immediately remove it from the device or cell charger and place it in a contained vessel such as a metal box.
- In case the cell terminals are contaminated, clean the terminals with a dry cloth beforeuse. Otherwise power failure or charge failure may occur due to the poor connection between the cell and the electronic circuitry of the instrument.
- Be aware discarded batteries may cause fire, 100%discharged the cell and tape the cell terminals to insulate them before disposal.

APPLICATION SCENARIO

		
EXPLORATION UAV	eVTOL	PLANT PROTECTION UAV
		
LOGISTICS TRANSPORT UAV	MAPPING UAV	FPV UAV

CERTIFICATION

ISO 14001 | ISO 9001 | ROHS | CE | FC

CONTACT US

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